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ABSTRACT

One of several essential tools for assessing how the financial health of educational institutions is evolving is the Consolidated Net Worth Statement. This essay explores various aspects of conventional "funds" balance sheets and compares them with the Consolidated Net Worth. Emphasis is placed on how the Consolidated Net Worth Statement can aid in determining financial strategy. Most colleges and universities are at the same time both richer and poorer than their financial statements suggest. By not expressing their assets in market values they often understate their worth; by not depreciating their fixed assets, they overstate their value. In recent studies operating deficits have been used as an indicator of financial distress and impending institutional doom. The total analysis provided by the Consolidated Net Worth Statement shows that deficits are not necessarily a reliable indicator. The essay points thus to a much broader analysis of financial health or distress than has been the custom until recently. (Author/MJM)

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THE CONSOLIDATED NET WORTH OF PRIVATE COLLEGES

Recommendation of a Model

by Hans H. Jenny

THE COLLEGE OF WOOSTER



THE CONSOLIDATED NET WORTH OF PRIVATE COLLEGES

Recommendation of a Model

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ABSTRACT

One of several essential tools for assessing how the financial health of educational institutions is evolving is the Consolidated Net Worth Statement. While it is not supposed to replace conventional "funds" accounting, it has the advantage of showing to layman and specialist alike at a quick glance whether a given institution is becoming richer or poorer.

The essay explores various aspects of conventional "funds" balance sheets and compares them with the Consolidated Net Worth. The author recommends the latter as a supplementary tool. He also suggests that one might differentiate between restricted and unrestricted assets. Illustrations are provided both in a short and a more expanded form.

The basic emphasis is on how the Consolidated Net Worth Statement can aid in determining financial strategy. Most colleges and universities are at the same time both richer and poorer than their financial statements suggest. By not expressing their assets in market values they understate their worth; by not depreciating their fixed assets, they overstate their value.

In recent studies operating deficits have been used as an indicator of financial distress and impending institutional doom. The "total" analysis provided by the Consolidated Net Worth Statement (supplemented by cash flow and debt analysis, a.o.) shows that deficits are not necessarily a reliable



Abstract, continued Hans H. Jenny

indicator. The essay points thus to a much broader analysis of financial health or distress than has been the custom until recently.

The College of Wooster

November 11, 1974



PREFACE.

This essay is a segment of a more wide ranging analysis of certain factors which might assist in determining whether educational institutions, particularly <u>private</u> colleges and universities, are moving toward or away from financial distress.

What we are suggesting here centers on the Balance Sheet; future essays will deal with cash flow and the interaction between key components of income, expenditures, assets, liabilities, and net worth.

We are distributing this installment now because some of you have encouraged us to do so. There also appears to be some evidence that college and university treasurers are ready for a departure, to wit the Report of the Treasurer of The University of Rochester (published March 1, 1972). Finally a recent piece in Newsweek (May 7, 1973) deals with an approach which seems to require some sort of positive response, inasmuch as the conclusions appear to create an even worse communications gap than the one already abroad.

We have two chief hopes in relation to this essay. First, we should like to invite the reader to respond in writing in as constructive a manner as possible. If we had not received considerable encouragement from some of you already we should not have proceeded with this.

Secondly, we hope that one or the other of the professional associations might convene a committee of experts either to lay the issue to rest or, as we expect, to develop it further for more general implementation.

We ask the readers' indulgence if at this writing the argument is not sufficiently developed. But since we have espoused these views for some time, we thought the time had come to share them more widely so as to encourage what we hope will be a constructive discussion.

Rowsburg, Ohio and Washington, D. C. May, 1973

Hans H. Jenny



I

Among the several conventional tools used to assess the financial state of health of a variety of economic ventures, the Statement of Income and Expenditures (or Profit and Loss), the Statement of Cash Flow, and the Balance Sheet are among the best known and most basic such instruments. This exploratory essay addresses itself to the college and university Balance Sheet and to a few of the more obvious interactions between it and the other tools mentioned. The thoughts which follow stem from three separate, though related, experiences.

First, as financial officers in colleges and universities, we find it necessary to translate our specialized financial terminology and structures to trustees and laymen whose experience in such matters comes from the world of industry, commerce, and banking. The conventions to which they have become accustomed lead to expectations which our terminology cannot fulfill in every respect. At the least, therefore, a major communications problem arises.

Second, while the communications gap may represent an important hurdle between the financial officer and those with whom he deals, there is the far more fundamental problem of whether we grasp fully what these documents are in fact telling us, professional and layman alike. Or to put it quite differently: what do these documents hide from us?

The college and university <u>Balance Sheet</u> in particular appears to create its own special difficulties. Assuming that the essential items listed are there because they serve the major function of informing the reader, one question is whether the <u>Balance Sheet</u> tells us anything of note about the financial health of a given institution, good, bad, or indifferent.

One cannot divorce completely accounting detail and structure from policy making. The Balance Sheet embodies a model conception of which variables are essential. When seen over time, the structure even implies a basis for judging performance, especially to those privy to the attendant conventional wisdom. Thus one certainly interesting question which arises is whether the conventional college and university Balance Sheet provides relevant and maximum information when we focus on the key question of what specific financial resources are available to a given institution and what specific potential there is for optimum financial development.



Third, since there has been raised at the national level the question of what is meant by financial distress in colleges and universities, it looked promising to investigate whether there are in the Balance Sheet some appropriate indicators of such distress. In this respect we wonder also whether such indicators might be found more readily after some minor or significant transformations in data elements, structure, or both.

The comments which follow are not intended to exhaust the many possible dimensions and arguments bey raise. Rather it is our intention to get the ball rolling in some that after proper discussions and consensus making some of our recommendations may become part of the reporting and auditing procedures in educational institutions.



Not every <u>Balance Sheet</u>, of course, measures up to its ideal potential, the latter consisting of disclosing in concise form a maximum of relevant information. Those engaged in economic activity frequently are impelled to withhold information, particularly the kind which would tend to reflect adversely on management. Full and truthful disclosure does not come easily. Often it must be induced by strict auditing procedures and sometimes even by legislative pressure.

In college and university accounting, the <u>Balance Sheet</u> is supposed "to present a concise statement of the financial condition of an institution and of the financial resources for which it is responsible at a specified date" (1). The choice of terminology is interesting; most college and university <u>Balance Sheets</u> are, indeed, concise. But do they allow an analyst a clear evaluation of either the financial resources available or of the financial condition of an institution?

College and university accounting reposes on the well established tradition of "separate funds" reporting. The normal college Balance Sheet thus identifies as distinct units the following funds: Current Funds, Loan Funds, Endowment and Similar Funds, Plant Funds, Annuity and Life Income Funds, and various Agency Accounts or Trusts.

Behind this arrangement (or minor variations thereof) stands a considerable body of history, common practice, and folklore. Essential to it has been the periodic pressure exerted by peers and the professional publications jointly sponsored on the subject by college and university business officers. A recent explanation -- and one of great lucidity -- can be found in the Report of the Treasurer of The University of Rochester (1971), with text written by La Roy B. Thompson and William M. Wilkinson.

The authors make an interesting observation at the outset of their report. "Fund accounting is designed more for stewardship than for financial management" (2). This remark is important because it qualifies the quotation above in a significant way: in the tradition of college and university accounting, the fiduciary need to explain how the stewardship function is being carried out is dominant. The following questions, according to the above authors, are basic to the issue: "How much was received? Where did it come from? What did the University spend it for? How much remains for the future?" (3)



By and large, colleges and universities have answered these questions diligently, and since the payoff for cheating appears to have been limited, we know of very few scandals in higher education accounting similar to those the <u>Wall Street Journal</u> often describes for industry and finance. The above questions point to the problem of evaluating the institution's financial condition, but as the authors say they do not center on what has become a prime need in modern college and university business management: effective and optimal use of all available financial resources.

Accounting and management in colleges and universities are, of course, not limited to the institution's fiduciary responsibilities. One wonders whether the fiduciary emphasis is as important as convention has made it. This is not to suggest that it is not important. But at a time of increasing stress and scarcity of resources one may be pardoned for asking whether the time has not come for a significant shift in college and university accounting to facilitate answering questions pertaining to the financial management and financial analysis of institutions. Such a shift need not be at the expense of fiduciary accounting or responsibilities.

It is thus our contention here that a properly detailed and constructed <u>Balance Sheet</u>, supplemented by appropriate and extensive annotations, can and should be developed for objective evaluation not only of the current but of the evolving financial condition of colleges and universities. Stated in its most simple terms, we are interested in discovering whether the institution is getting richer or poorer. More importantly, we should like to be able to determine, as stresses appear in certain areas of the Balance Sheet, whether other available resources, if any, are being used judiciously in order to prevent future institutional financial distress. Of course, the <u>Balance Sheet</u> alone cannot provide a full answer to what is at best a very complex problem. But it can provide a major share of the answer.

This is not to suggest that the conventional Balance Sheet prevents us from making a sound financial analysis. The point rather is that this analysis will tend to be made mostly by knowledgeable insiders. Those charged with the ultimate stewardship and policy functions, the governing boards, must depend on these insiders for interpretation. If Thompson and Wilkinson are correct, and our own experience would support their argument, there simply is too much confusion in the minds of responsible laymen. In the 1971, University of Rochester Report of the Treasurer they try to solve the problem by explaining what the conventional accounting structure means, and they do it well.

We believe that this is not enough. Therefore, we are recommending a set of additional steps which we believe can be taken immediately and this without discarding any of the conventional practices.



The proposal which follows must be viewed by the reader as supplementing other types of analysis. The suggested procedure is in part illustrative rather than normative; others may prefer their own modifications of the general approach set forth. Also, since there are specific legal constraints which vary considerably from one institution to another, there may emerge eventual refinements of what is here perhaps too crude a cut.



The <u>Income</u> and <u>Expenditure</u> or <u>Profit</u> and <u>Loss Statement</u> of the normal private business enterprise relates to the total <u>Balance Sheet</u>. The latter reflects the financial condition of the total enterprise. In traditional business accounting this concept of the <u>consolidated totality</u> (even when it is composed of statements from subsidiaries) is a cornerstone in corporate financial analysis.

The typical college and university <u>Balance Sheet</u> is in truth not a consolidated financial statement at all. It is a sum of separate <u>Balance Sheets</u>. The whole thing is held together loosely by the <u>Statement of Changes in Fund Balances</u>.

Each Fund is in its own right a composite of assets, liabilities, and whatever else colleges call the difference, usually simply termed the balance. An assessment of the relative financial health of a given institution will require among other things that the analyst begin by taking apart this basic financial information provided in each separate fund in order to reassemble it along other than mainly fiduciary criteria.

Like a business, a college is among other things a sum total of concrete economic happenings. Colleges purchase and sell assets, they incur debt and lend funds to others, and they buy and sell services. Some obligations mature relatively soon, others have longer range implications. Overall, the institution has at its disposal a set of differentiated known total resources, and the nature and scope of these resources have a bearing on how financially viable it is.

We believe that colleges and universities might wish or need to obtain an additional perspective on their total resources mix by transforming their conventional <u>Balance Sheet</u> into what we shall call the <u>CONSOLIDATED NET WORTH STATEMENT</u>.



CONSOLIDATED NET WORTH STATEMENT

\$ in 000

	1970	1971	1972
Assets			
Short Term Assets Sinking Funds, Reserves	\$ 2,555 517	\$ 2,057 577	\$ 2,767 638
Fixed and Long Term Assets	83,239	92,933	96,396
Total	\$ 86,311	\$ 95,567	\$ 99,801
Liabilities			
Short Term Liabilities Long Term Liabilities	\$ 3,302 11,975	\$ 3,216 13,605	\$ 3,461 12,830
Total	\$ 15,277	\$ 16,821	\$ 16,291
Net Worth			
Long Term Capital including Appreciation Short Term Reserves	\$ 69,418 <u>1,616</u>	\$ 77,737 1,009	\$ 82,262 1,248
Total	\$ 71,034	\$ 78,746	\$ 83,510
Total			
Liabilities and Net Worth	\$ 86,311	\$ 95,567	\$ 99,801

Above, we have not divided the Net Worth or Proprietorship account into meaningful enough sub-components. For instance, we believe that it is essential to show whether there exists an accumulated Surplus/Deficit balance. The "Short Term Reserve" line could then be restated as follows:

Short Term Reserves	1,622	1,021	1,248
Minus Accumulated Operating Deficit	6	12	0-
Short Term Reserves, Net	1,616	1,009	1,248



Thus, the historical comparison shows not only that the Net Worth has been increasing substantially, but that there is no significant accumulated Deficit problem to worry about.

In addition, we need some notes calling attention to certain internal or inter-fund liabilities, particularly those which require annual amortizations -- as in the case of borrowings from Endowments or from certain restricted funds. In the illustration we should have to report an internal debt to Endowment as follows:

Owed to Endowment from Plant

1.606

1.544

1.464

Finally, it will be appropriate to provide adequate detail to enable the analyst to see how much, if any, liquidity is available to the institution. Unfortunately, a Balance Sheet can only give us the situation for a particular day; even historical comparisons will not be adequate, and here the proper financial document would be a twelve-month cash-flow and liquidity statement.

The following table renders the above information in somewhat greater detail and may serve as an illustration of how one might mix conventional college and business accounting terminology. To the extent that fixed assets are being depreciated, appropriate details should be added for this both in the Fixed Asset and the Net Worth sections. Finally, a complete listing of the debt should be provided in a note, showing interest, debt repayment requirements, and maturities. (5)

The reader will please note the absence of Intangible Assets. Where copyrights and patents are present they ought to be set forth; otherwise it is best to ignore intangible assets, even though they may be of considerable worth for specific institutions.



CONSOLIDATED NET WORTH STATEMENT

\$ in 000

Acco	t o	1970	1971	1972
Asse				
A.	a. Cash (except endow.) b. Accts. Receivable c. Investments	1,140 534 7	510 436 303	369 447 987
	d. Inventories and Deferred Charges Total	$\frac{875}{2,556}$	808 2,057	$\frac{964}{2,767}$
В.	Sinking Funds and Reserves.	517	577	638
c.	Assets. a. Student Loans Receivable b. National Defense Loans Receivable c. Endow. Investments d. Plant (orig. cost) Total	734 1,596 30,806 50,102 83,238	1,189 1,852 36,424 53,469 92,934	1,465 2,256 37,360 55,316 96,397
	l Net Assets Onsolidated	86,311	95,568	99,802
_	oilities and Net Worth			
D.	Accounts Payable & Accounts Payable & Accrued b. Prepaid Tuition c. Research Grant Funds	2,567 516 219 3,302	2,396 650 170 3,216	2,596 726 <u>138</u> 3,460
Ε.	Long Term Liabilities. a. U.S. Govt. Bonds b. Notes Payable c. Nat. Defense Loans	3,473 7,040 <u>1,462</u> 11,975	3,416 8,500 <u>1,690</u> 13,606	3,358 7,408 <u>2,065</u> 12,831
	Total Liabilities	15,277	16,822	16,291

(Table Continued Next Page)



	1970	1971	1972
Net Worth			
F. Short Term Reserves. 1. Unused Income 2. Minus Accumulated Operating Deficit Net Unused Income	1,622 6 1,616	1,021 1,009	1,248 -0- 1,248
G. Long Term Capital.	,		,
 Student Loan Funds Endowment Funds Plant 	1,000 21,560 <u>36,782</u> 59,342	1,590 22,336 38,777 62,703	1,619 23,165 42,477 67,261
H. Appreciation-Endowment.			
 Realized Unrealized 	9,813 263 10,076	10,978 4,056 15,034	10,838 4,114 15,002
Total Net Worth	71,034	78,746	83,511
Total Liabilities and Net Worth	86,311	95,568	99,802



The CONSOLIDATED NET WORTH STATEMENT consists in its initial stage in a full adaptation to the college and university scene of the Proprietorship or Net Worth concept of traditional business accounting. An educational institution has a certain financial value. Its financial potential with respect to assets and liabilities is similar if not identical to that of the conventional business enterprise, its non-profit status notwithstanding. The Net Worth concept is both useful and appropriate.

At its most simple, the Net Worth idea suggests that the institution is in fact the owner of its net assets. This is not more perverse than the accepted convention that the institution owes its debts. The various funds are in the words of a former assistant attorney general economic facts disguised in "legal fiction." The "legal fiction" of Net Worth need not be any more or less ludicrous than that of "fund balances." The CONSOLIDATED NET WORTH STATEMENT allows us to answer the fundamental question of what belongs to whom. In so doing it will enable the analyst to reach some judgment about the relative state of financial health of the institution.

The separation of a college's financial doings into separate funds obscures perhaps as much as it illuminates. Eventually all losses will have to manifest themselves in the Current Fund Balance. Take, for instance, the Student Loan Funds where the likelihood of long term non-payment losses is increasing. To the extent that institutional funds are involved, such losses will most likely be written off in the Current Account. A properly constructed and detailed CONSOLIDATED NET WORTH STATEMENT can and should provide information on such relationships and allow the analyst to ask pertinent questions about reserve requirements and possible long range prospects for losses and increasing indebtedness.

Another area where the artificial separation into funds is less than helpful to the financial analyst is the <u>Plant Account</u>. The habit of looking at Plant Gifts as restricted funds may make sense from a fiduciary point of view. But it also makes sense to see Plant Gifts as donations of capital.

Once the specific Plant item has been built it belongs to the institution and becomes an integral part of the total expenditure and asset structure. If Plant has been financed with borrowed funds there remains a net asset value. In addition, debt service has been added to the expenditure stream.

One aspect of asset valuation worth mentioning is the need to express assets as much as possible in both historical and current market terms. This suggestion should extend at least to all marketable investments and to real estate, if not to all property such as



classroom buildings, dormitories, or what have you. The changing values of these assets have a bearing on the evolving financial viability of the institution, and the financial analyst would be interested to have some idea of the full financial potential which these assets reflect.

This kind of information is especially crucial at a time when talk of institutional financial distress is on the increase. Most of the documentation concerning such distress has centered on the more frequent and larger deficits on <u>Current Account</u>. The CONSOLIDATED NET WORTH STATEMENT allows even the layman to see the financial condition of a given institution in a broader light.

Furthermore, if and when educational institutions can be induced to account for their full costs, including a realistic factor for plant and equipment depreciation (but excluding opportunity costs), the CONSOLIDATED NET WORTH STATEMENT would provide a revealing glimpse of the overall financial implications and potential this would entail.

One major defect in the presentation so far has been the deliberate omission of the problem posed to the analyst by the presence of often substantial amounts of "restricted" money. In this context we should like to recommend that institutions try to rethink the problem of how to account for restricted funds. We suggest that they report all restricted funds in a separate CONSOLIDATED RESTRICTED FUNDS (ONLY) STATEMENT. The structure of this statement would be the same as for the CONSOLIDATED NET WORTH STATEMENT so that the latter may be expressed net of restricted funds, as well as in the aggregate.

We recognize the difficulties associated with this suggestion, including the maze of arguments which will crop up about the meaning of "restricted funds." We already have guidelines on how to go about it and if we persevere in adherence to them, this question will be resolved.

One of the key uses of a RESTRICTED FUNDS (ONLY) STATEMENT can be to define the extent to which management is free to exercise its own judgment in the specific use of available resources. At the least such a statement would help in pinpointing the scope of the institution's financial activity which requires consultation of legal documents before one is able to judge managerial performance.



IV

As the battle for scarce financial resources in Higher and Postsecondary Education increases, it is inevitable that there will appear smart schemes designed to reallocate available monies. The appearance on the financial statements of colleges and universities of simultaneous operating deficits and growing net worth accounts does not help matters. If we improve the versatility and clarity of our financial reports we may be saving ourselves unnecessary embarrassment or tedious explanations.

A case in point is the recently published study entitled, "University Accounting: Alternative Measures of Ivy League Deficits" by Harold Bierman, Jr. and Thomas R. Hofstedt (6). While their argument is in line with some of our own reasoning, any conclusion that colleges and universities are making profits is at least premature, if not silly. As long as the books do not disclose the effect of full cost-accounting, the mere manipulation of Balance Sheet data is not enough. We plan to devote some thought to the principles of financial analysis in a subsequent essay. But so as not to give the impression that our proposal is just another superficial gimmick, we should like to sketch briefly why we think it is not only a useful, but an essential next step.

In the realm of business enterprise, financial analysis has proceeded over the years to become ever more sophisticated. The evolving conventions may not yet be the last word on the subject. But they do have the virtue of enabling an analyst to obtain a reasonably accurate judgment of whether a given corporation is in financial trouble or whether it is gaining in financial strength.

An interesting aspect of business financial analysis is that there exist generally accepted indicators of relative health. These will often differ when viewed industry by industry. They make possible a consensus on whether things are improving or deteriorating. Deviations from the norm are an important part of the analysis.

In college and university accounting a similar type of consensus exists mostly with respect to the Current Account. Yet, as we have begun to borrow large sums of money, as our financial management has become more business-like (and we mean by this "more like what we see happen in business"), one wonders whether the time is not ripe for the establishment of certain benchmarks for the measurement of relative financial health which go beyond those that are now commonplace.



We do not wish to imply that individual institutions do not have such benchmarks now. The suggestions which follow may seem quite old hat to many readers. What we are suggesting goes beyond individual practice. We expect that the information developed by institutions may lend itself to evolving a consensus on what specific relationships between certain components might mean to the financial analyst as he views the education industry as a whole. This might eventually lead to an evaluation of financial management performance.

Thus, in order to give more focus to financial analysis based on the CONSOLIDATED NET WORTH STATEMENT, we should like to suggest that college and university financial statements be supplemented to contain comparative information (at least for five years) on specific key financial indicators.

The following list is incomplete and submitted here mostly for illustrative purposes. It does contain some of the most obvious ratios, but not necessarily the most significant. The reader is invited to provide others and better ones.

- 1. Asset to Debt Ratios: Current ratio; fixed assets to long term liabilities; income producing plant assets to liabilities; plant assets with liabilities to corresponding liabilities; total assets to total liabilities; etc.
- 2. Debt Service Expense Ratios (DSE): DSE to total assets, to total liabilities, and to net worth; DSE for long term liabilities to fixed assets; DSE for short term liabilities to total short term liabilities, to total short term assets.

DSE to total operating expenditures, to total operating income, to current surplus or deficit, to accumulated surplus or deficit.

- 3. Net Worth Ratios: Operating surplus or deficit to net worth; accumulated operating surplus or deficit to net worth; net worth to total liabilities, to total assets.
- 4. Selected growth indices for the above indicators in addition to the conventional growth and distribution indices familiar to the practitioners.



- 5. DSE + (Student Aid Grant Income-Student Aid Grant Expenditures) + Educational and General expenditures + Auxiliary Enterprise expenditures minus Educational and General + Auxiliary Enterprise income to Operating Surplus or Deficit.
- 6. Appropriate and selected full Time Equivalent Student (FTES) indicators using the above and the conventional base data.

In assessing the extent of financial distress in Higher Education, especially in the private sector, the impact of student aid, of debt and of debt service expense are becoming key factors. At the same time, the fact of whether the overall wealth of the institution is growing or not is also most relevant. The above ratios and some supplementary ones surely to be suggested by readers may in time come to constitute a more formal and common base for evaluating the financial state of health of educational institutions. Once such data become more readily available to funders, it may then be possible to speak both with greater assurance and more convincingly of what does and what does not constitute financial distress in postsecondary education.



¹ College and University Business Administration, Revised Edition, American Council on Education, Washington, D. C., 1968, p.170.

Report of the Treasurer, University of Rochester, Rochester, New York, 1972, p. 1.

³ op. cit., p. 1.

⁴ op. cit., p. 4.

⁵ See exhibits in op. cit., p. 23.